

# Time-line of McMaster-MSU JAVA-NDS code

2007: Balraj Singh (McMaster University) proposed that a new computer code should be available in a modern language such as JAVA for the production of NDS-style print versions of tables, level-schemes and band drawings, a code which the ENSDF evaluators could run on their own computers. Further, Balraj suggested that such a code be written by Roy Zywina, his student with excellent programming skills, who had worked during 2001-2004 on several ENSDF-related projects, including the production of photo-ready publication of “Table of Superdeformed Nuclear Bands and Fission Isomers” in 2002.

2007-2008: Roy developed such a code in regular consultation with Balraj.

2008-2011: Scott Geraedts and Jeremie Choquette, McMaster students working with Balraj (on XUNDL and NSR projects) worked on this code further to make it operational.

April 2015- : Major improvements done by Dr. Jun Chen (NSCL, MSU) to make this code user friendly. As of November 30, 2015, a beta version made available, while work is still in progress.

Version	Year	Developers	Description
1.0	2007-2008	Roy Zywina Balraj Singh (McMaster Univ.)	Built the basic structure of a large code, but not functional. Roy quit working on the code.
1.1	2008-2010	Scott Geraedts Balraj Singh (McMaster Univ.)	Wrote an interface to make the code workable for tables and drawings, but mainly focusing in band drawings for NDS publications. 2009-2014 this code used for band drawings in several NDS publications.
1.2	2009-2011	Jeremie Choquette Balraj Singh (McMaster Univ.)	Further code writing to produce complete tables and drawings of level schemes and bands with a control file. Complete mass chains were produced in publication quality. This version demonstrated at NSDD-2009 and NSDD-2011. 2012- onwards, this code used by Dr. M. Verpelli at IAEA for drawings in his LiveChart code. 2011-2015: no further development due to lack of interest.
1.3	April 2015-	Jun Chen (NSCL, MSU)	Restructured the program; added features for auto-adjustment of table layout; added graphical user interface (GUI). Working version of the code demonstrated at IAEA-ENSDF-Codes meeting in October 2015 and US-NDP meeting in November 2015. <i>November 30, 2015</i> : beta version sent to NSDD network for comments and feedback.

			<i>May 9-11, 2016:</i> a workshop on validation and implementation of JAVA-NDS was held at TUNL to discuss the details of this program with comments and feedback from users and evaluators and to make plan for improvements.
1.4	August 2016	Jun Chen (NSCL, MSU)	<i>August 15, 2016:</i> a released version is available for downloading for the whole NSDD community.
1.5	November 2016	Jun Chen (NSCL, MSU)	<i>November 08, 2016:</i> lots of improvements are made since version 1.4; functions for manual settings with a control file or in control panel are fully implemented.